CRITICAL REVIEW OF ROBERT M. SAPOLSKY, *DETERMINED: A SCIENCE OF LIFE WITHOUT FREE WILL* (NEW YORK: PENGUIN, 2023)

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Robert M. Sapolsky is among those prestigious scientists and philosophy professors who are determined to consign any concept of free will to eternal oblivion. I use the word "determined" in a literal sense, because, according to this elite group, everything humans and other biological beings think and do is literally "determined" in a necessary chain of cause and effect from at least the time of the Big Bang. This is often called "universal natural determinism" or "predeterminism," but, following academic convention, Sapolsky simply calls it "determinism." Such conflation of terms creates, however, an unnecessary and misleading ambiguity: "determinism" (which could include local but not universal cause and effect) is not exactly the same as "universal natural determinism" or "predeterminism," though Sapolsky implicitly considers all these terms to be identical. Since, however, he uses the term "determinism" as a synonym of "universal natural determinism," I will mostly follow his usage in this review.

Parenthetical page references to *Determined* in the following discussion are to the Kindle edition of that book.

Pursuant to his own teaching, Sapolsky was "determined" to write the subject book, and I was "determined" to prepare the present review. The same premise necessitates the conclusion that Adolph Hitler was "determined" to conquer much of Europe and that Winston Churchill, Franklin D. Roosevelt, and all political and military components of the Allied forces were "determined" to defeat him. Stalin's tyranny, the Cold War between the Soviet Union and the United States, the rise of Vladimir Putin, the authoritarian proclivities of Donald J. Trump, the violent January 6, 2021 attack on the U.S. Capitol and interference with congressional proceedings mandated by the Constitution, the criminal prosecutions against the insurrectionists and Trump, the outcomes of such proceedings, and all past, present, and future events in U.S. and world history were/are determined: neither individuals nor political leaders operate with any degree of free will. All is vanity. We are playthings of the gods or—reaching back to the later Augustine, Luther, and Calvin—we are all just a part of God's immutable plan for the human race. The similarities between

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theological predeterminism and contemporary scientific (pre)determinism have been recognized even by some votaries of the latter.[1]

Unlike most of his scientific and philosophical compatriots, Sapolsky writes in a popular and breezy style, attempting to bring the determinist gospel to the masses, who rely on the commonsense and presumably benighted view that some sort of free will exists. Whether or not the masses accept the determinist gospel, however, would be, according to that very gospel, determined. Sapolsky cannot pat himself on the back for any success he may achieve in his endeavor. By his own doctrine, he, like everyone else, is "determined" to think and do whatever he thinks or does. None of the entreaties in Sapolsky's book were the result of his free will; he is merely a robot spewing forth what he was "determined" to spew forth. Or so his determinist mantra goes.

There is a principle of logic called reductio ad absurdum, which Merriam-Webster defines as "disproof of a proposition by showing an absurdity to which it leads when carried to its logical conclusion." But what might be considered an absurdist bug in determinist lore is actually its essential feature.[2]

Sapolsky's argument is marred by his employment of logical fallacies in attempting to establish his thesis.[3] First, Sapolsky's arguments against free will are strangely circular, not to say incoherent. After admitting that many famous biological, social scientific, and historical arguments against free will do not, by themselves, disprove free will (see, e.g., 56, 74, 78, 109), he somehow thinks that by lumping them all together, they, abracadabra, make free will disappear (85). He assumes the very premise he needs to prove.

This circular reasoning is related to Sapolsky's deployment of the hasty generalization fallacy. His case against free will boils down to an argument that everyone is controlled by genetic and environmental influences that they cannot overcome. In again asserting the premise that he never proves, Sapolsky writes: "Just to restate that irritatingly-familiar-by-now notion, we are nothing more or less than the sum of that which we could not control—

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[1] See, for example, Derk Pereboom, *Free Will, Agency, and Meaning in Life* (Oxford: Oxford University Press, 2014), 1, Kindle; Gregg D. Caruso, *Free Will and Consciousness: A Determinist Account of the Illusion of Free Will* (Lanham, MD: Lexington Books, 2012), 13n1; and Gregg D. Caruso, "Introduction," in *Exploring the Illusion of Free Will and Moral Responsibility*, ed. Gregg D. Caruso (Lanham, MD: Lexington Books, 2013), 15n4, Kindle. Sapolsky explicitly states (242) that he is a fellow traveler of Pereboom and Caruso, though his own book does not explicitly acknowledge a sympathy with theological predeterminism.

[2] Properly used, reductio ad absurdum is a legitimate form of rational argument. Walter Sinnott-Armstrong, *Think Again: How to Reason and Argue* (New York Oxford University Press, 2018), 204–6 (distinguished from a straw person argument), Kindle; Gregory L. Block, "Appeal to Ridicule," in *Bad Arguments: 100 of the Most Important Fallacies in Western Philosophy*, ed. Robert Arp, Steven Barbone, and Michael Bruce (Hoboken, NJ: Wiley-Walton, 2018), 119–20 (distinguished from ridicule), Kindle.

[3] For a discussion of the following and other fallacies, see Alan E. Johnson, *Reason and Human Ethics* (Pittsburgh: Philosophia, 2022), 40–54.

our biology, our environments, their interactions" (240). In endlessly repeating this unproven determinist mantra, Sapolsky apparently hopes that the reader will accept it. But, in addition to the argument being an instance of circular reasoning, it is also the product of incorrect generalization. Philosopher and political scientist Christian List addressed this familiar notion as follows:

> Now, I should acknowledge that, in both public and scientific discourse, we keep hearing claims to the effect that certain forms of human behaviour are explained by people's genes, their social and economic backgrounds, their upbringing and education, their peers, and other factors. But those research findings are rarely able to attribute more than a certain *part* of the observed behavioural variation across people to those purported explanatory variables. The variables in question are typically shown, at most, to affect the *probabilities* of certain behaviours, without fully determining them, and there is little reason to think that we will ever arrive at a truly deterministic theory of psychology.[4]

As I have observed elsewhere:

> One cannot argue with the proposition that genetic and environmental factors sometimes—perhaps even often—influence human thought and behavior. However, as neuroscientist William R. (W. R.) Klemm has stated, "Intentions, decisions, and choices are of course influenced by their unconscious antecedents, but are not inevitably determined by them because the conscious mind can intervene, veto, or otherwise control."[5]

Similarly, neurogeneticist Kevin J. Mitchell admits that such predispositions often exist, but "[w]e can and do exercise the capacity for conscious, rational control. Thus, although we cannot necessarily change our basal psychological predispositions, we are not slaves to them."[6]

In contrast to List, Klemm, Mitchell, and others, Sapolsky claims that there is no room for rational control over our irrational impulses. This issue involves in-depth investigations into neuroscience, quantum physics, and other studies, all of which are beyond the scope of the present review. Like many scientific and philosophical (pre)determinists, Sapolsky seems to assume that free will advocates have the burden of proof on such issues,

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[4] Christian List, *Why Free Will is Real* (Cambridge, MA: Harvard University Press, 2019), 98 (italics in the original).

[5] Alan E. Johnson, *Free Will and Human Life* (Pittsburgh: Philosophia, 2021), 39 (quoting William R. Klemm, *Making a Scientific Case for Conscious Agency and Free Will* [n.p.: Elsevier, Academic Press, 2016], 3).

[6] Kevin J. Mitchell, *Free Agents: How Evolution Gave Us Free Will* (Princeton: Princeton University Press, 2023), 282, Kindle.

notwithstanding the reductio ad absurdum discussed above as well as the fact that some sort of free will appears to be natural and essential to human experience.

Sapolsky commits the straw person, ad hominem, faulty analogy, and false dichotomy fallacies in conflating the views of serious scientists and philosophers with New Age celebrities and the lowest common denominator of public opinion supportive of free will. Although he mentions neuroscientist Peter Ulric Tse, he quotes selectively from one of Tse's essays without discussing or even mentioning his comprehensive and detailed scientific work, *The Neural Basis of Free Will: Criterial Causation* (Cambridge, MA: MIT Press, 2013). Sapolsky also fails to address the careful scientific and philosophical arguments supporting free will in the books of neuroscientist William J. (W. J.) Klemm,[7] astrophysicist-philosopher Bob (Robert O.) Doyle,[8] and quantum physicist Henry P. Stapp.[9] The scientific issues are exceedingly complex, and no one—including any determinist—can at this time legitimately claim final, scientific truth on them.

Determinists often cite the work of experimental neuroscientist Benjamin Libet as urtext opposing free will. However, in his book *Mind Time: The Temporal Factor in Consciousness*,[10] published about three years before his death, Libet made it clear that he did not oppose free will (parenthetical citations in the following three paragraphs refer to pages of this book).

Libet stated: "We may view voluntary acts as beginning with unconscious initiatives being 'burbled up' by the brain. The conscious will would then select which of these initiatives may go forward to an action, or which ones to veto and abort so no motor act appears" (139). This understanding is similar to the conceptions of free will articulated by astrophysicist-philosopher Robert O. (Bob) Doyle and quantum physicist Henry P. Stapp.[11]

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[7] Klemm, *Making a Scientific Case for Conscious Agency and Free Will*; Klemm, *Atoms of Mind: The "Ghost in the Machine" Materializes* (N.p.: Springer Science+Business Media, 2011); Klemm, *Mental Biology: The New Science of How the Brain and Mind Relate* (Amherst, NY: Prometheus, 2014).

[8] Bob (Robert O.) Doyle, *Free Will: The Scandal in Philosophy* (Cambridge, MA: I-Phi Press, 2011). See also Doyle's extensive, scholarly website at https://www.informationphilosopher.com/about/, especially the section of that website on free will (https://www.informationphilosopher.com/freedom/).

[9] Henry P. Stapp, *Quantum Theory and Free Will: How Mental Intentions Translate into Bodily Actions* (Cham, SZ: Springer, 2017); Stapp, *Mindful Universe: Quantum Mechanics and the Participating Observer*, 2nd ed. (Heidelberg: Springer, 2011); Stapp, *Mind, Matter and Quantum Mechanics*. 3rd ed. (Berlin: Springer, 2009).

[10] Benjamin Libet, *Mind Time: The Temporal Factor in Consciousness* (Cambridge, MA: Harvard University Press, 2004). The following three paragraphs are extracted from pages 29–30 of my book *Free Will and Human Life*. The experimental work of Libet and his associates and successors is discussed and critiqued on pages 24–30 of *Free Will and Human Life*.

[11] See footnotes 8 and 9 supra.

Libet explicitly rejected (pre)determinism, noting that "natural [physical] laws were derived from observations of physical objects, not from subjective mental phenomena" (152–53). "I can say categorically that there is nothing in neuroscience or in modern physics that compels us to accept the theories of determinism and reductionism" (216). "[W]e do not have a scientific answer to the question of which theory (determinism or nondeterminism) correctly describes the nature of free will" (154). "Great care should be taken not to believe allegedly scientific conclusions about our nature that depend on hidden ad hoc assumptions" (155).

Libet summarized his view about free will as follows:

> My conclusion about free will, one genuinely free in the nondetermined sense, is that its existence is at least as good, if not a better, scientific option than is its denial by natural law determinist theory. Given the speculative nature of both determinist and nondeterminist theories, why not adopt the view that we do have free will (until some real contradictory evidence appears, if it ever does)? Such a view would at least allow us to proceed in a way that accepts and accommodates our own deep feeling that we do have free will. We would not need to view ourselves as machines that act in a manner completely controlled by known physical laws." (156)

For further refutation of the determinist position, addressing major points in Sapolsky's subject 2023 book and articulating a case for free will based on recent scientific and philosophical studies, see my 2021 book *Free Will and Human Life*.[12] See also neurogeneticist Kevin J. Mitchell's excellent book *Free Agents: How Evolution Gave Us Free Will*, which (like Sapolsky's *Determined*) was released for publication in October 2023.[13]

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[12] The Introduction to *Free Will and Human Life* defines "free will" as "the independent ability to make conscious decisions that are neither predetermined nor random." Chapter 1 evaluates representative arguments against free will: theological predeterminism (Augustine's later writings, Luther, and Calvin), scientific causal predeterminism (universal natural determinism), ad hoc (genetic or environmental) determinism, and compatibilism/soft determinism (the view that free will and determinism are compatible). Chapter 2 examines representative arguments in favor of free will: Aristotle, modern dualism/nondualism (Descartes, Kant, and recent Christianity), and contemporary philosophical and scientific perspectives (including evolution/natural selection, neuroscience, quantum physics, and neuroplasticity). Chapter 3 (which also discusses chaos theory, complexity theory, and secular biological teleology) concludes that free will, properly understood, exists and is beneficial to human life.

[13] I have reviewed Mitchell's *Free Agents* at https://www.academia.edu/111003536/Review_of_Kevin_J_Mitchell_Free_Agents_How_Evolution_Gave_Us_Free_Will_Princeton_University_Press_2013_. My review of Mitchell's book may be considered a supplement to the present review of Sapolsky's book as well as to my 2021 book *Free Will and Human Life*.

Finally, Sapolsky argues at length against the concept of retribution in criminal justice. His views on this subject appear similar to those of determinists Ted Honderich and Susan Blackmore. I answered Honderich's arguments on this issue on pages 23–24 of *Free Will and Human Life* as follows:

> Chapter 11 of Honderich's book[14] evinces, among other things, his animus against retribution as a basis for criminal punishment. In this and other writings, he is passionately opposed to any notion of retribution as a legitimate consideration in criminal or social matters. To consign retribution to oblivion, he proposes to replace any notion of free will with the doctrine of predeterminism: if the criminal was predetermined to commit the crime, he/she cannot be responsible for it. This is the equivalent of killing a fly with a hydrogen bomb. There are several approaches to criminal punishment, for example, retribution, deterrence, societal protection, and rehabilitation. Some criminal law theorists oppose retribution as a basis for criminal law without any reference to (pre)determinism.[15] Although good arguments can be made against retribution, it must also be kept in mind that the social contract involves the assumption by government of the formerly private right of retribution/retaliation. See John Locke's *Second Treatise of Government*. In any event, Honderich's project of eliminating retribution by means of indoctrination in predeterminist lore is a fool's errand. People are less likely to accept predeterminism than to rethink the wisdom *vel non* of retribution. Moreover, if predeterminism is true, both crime and punishment are inevitable: it would be all a matter of cause and effect.

Those points also appear to be applicable to Sapolsky's position, at least to the extent I understand it (his lengthy remarks on this subject meander so much that I cannot clearly ascertain what, exactly, his position is). Criminal justice issues are subjects of political and legal philosophy. If, however, free will does not exist, there is no basis for such philosophy: what will be will be. As established above, Sapolsky has not proven his main argument that free will does not exist. Accordingly, issues of criminal justice remain within the purview of political and legal philosophy. They will not and should not be decided by the chance mechanisms of scientific determinism.

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[14] Ted Honderich, *How Free Are You: The Determinism Problem*, 2nd ed. (Oxford: Oxford University Press, 2002).

[15] See Wayne R. LaFave and Austin W. Scott Jr., *Criminal Law* (St. Paul, MN: West, 1972), 24.